

Abstract

## Transistor

5           The invention relates to a transistor having an emitter (1), a collector (2), and a  
base layer (3), wherein the emitter (1) extends into the base layer (3), wherein the base  
layer (3) has an intrinsic region (4) arranged between the emitter (1) and the collector (2),  
and an extrinsic region (6) that runs between the intrinsic region (4) and a base contact (5),  
wherein the base layer (3) contains a first doping layer (7) doped with a trivalent doping  
10           substance, which extends into the extrinsic region (6) and which is counter-doped by  
means of a pentavalent counter-doping substance (8) in the region of the emitter (1). The  
electrical resistance of the base layer (3) can be reduced, in advantageous manner, by  
means of the first doping layer (7).

15           Figure 1